CLAIMS:

1.   A sound recording and reproduction system comprising:
-        ear microphones for recording sound;
-        sound reproduction means for generating sound; and
-        means to control the sound signal generated by said sound reproduction
5   means,
characterized in that the system comprises:
-        a storing device (2) for storing sound signals recorded by the microphones
(M_R, M_L);
-        an input (24) for reproduction of a recorded sound signal (S3) on the means
10   for generating sound (LS_R, LS_L) through an adaptive filter (21),
-        the system comprising a feed back system (25) comprising the input (24), the
adaptive filter (21), at least one ear microphone (M_R, M_L), at least one sound reproduction
means (LS_R, LS_L) and a comparison means (22) for comparing an input signal (S3) to a
signal received (S6) by the microphone during reproduction of said input signal (S3), said
15   comparison means (22) providing a comparison signal (e) for regulating the adaptive filter
(21).

2.   A sound recording and reproduction system as claimed in claim 1,
characterized in that the sound reproduction means are headphones (LS_R, LS_L).
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3.   A sound recording and reproduction system as claimed in claim 1,
characterized in that the system comprises a delay element (23) for delaying the recorded
signal prior to the comparison means (22).

25   4.   A sound recording and reproduction system as claimed in claim 1,
characterized in that the system comprises a means (31) to alter a recorded signal prior to the
input of the feed back system (25).

5.   A sound recording and reproduction system as claimed in claim 1 or 4, characterized in that the system comprises head tracking means (51, 52, 53, 54).

6.   Computer program comprising program code means for use in a system in accordance with the invention when said program is run on a computer.

7.   Computer program product comprising program code means stored on a computer readable medium for use in a system in accordance with the invention when said program is run on a computer.

8.   Computer readable medium (CD, cassette or other carrier) comprising a computer program code means or computer program product as claimed in claim 7.

9.   Method for recording and reproduction of sound through ear microphones and sound reproduction means in which method
-    sound data are recorded by ear microphones
-    said sound data is stored on a storage device
-    said recorded sound data is reproduced during which reproduction the recorded data is reproduced by sound reproduction means
-    said recorded sound data forming input data for a feed back system (25) comprising an input (24), an adaptive filter (21), at least an ear microphone (M_R, M_L), at least one sound reproduction means (LS_R, LS_L) and
-    the input data (S3) are compared in a comparison means (22) to a signal received by the microphone (S6) during reproduction of said input data (S3)
-    and by said comparison means (22) a comparison signal (e) for regulating the adaptive filter (21) is provided.

10.   Computer program product comprising program code means stored on a computer readable medium for use in a method in accordance with the invention when said program is run on a computer.

11.   Computer readable medium (CD, cassette or other carrier) comprising a computer program code means or computer program product as claimed in claim 10.

12.   A sound reproduction system comprising ear microphones and sound
reproduction means for generating sound and means to control the sound signal generated by
said sound reproduction means, characterized in that the system comprises an input (24) for a
recorded sound signal (S3) on the means for generating sound (LS_R, LS_L) through an
5   adaptive filter (21), the system comprising a feed back system (25) comprising the input (24),
the adaptive filter (21), at least one ear microphone (M_R, M_L), at least one sound
reproduction means (LS_R, LS_L) and a comparison means (22) for comparing an input
signal (S3) to a signal received by the microphone (S6) during reproduction of said input
signal (S3), said comparison means (22) providing a comparison signal (e) for regulating the
10   adaptive filter (21).